

A Simple Technique to Decrease Peritonitis Rates

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Introduction

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- We outline a simple technique developed in a WellBound home dialysis training center (Center 1) in response to elevated peritonitis rates in PD patients (1 episode per 18-20 patient months)
- Although considered unacceptable these rates were in fact not higher than those considered the minimum standard in the 2005 ISPD guidelines (1 episode per 18 patient months).

Initial steps

- In May 2005 we introduced several interventions
 - Retraining of all patients
 - Longer training period
 - Monthly aseptic technique reinforcement (including hand washing and wearing a mask)
- This led to some improvement in peritonitis rates to 1 episode per 26 patient months
- A fishbone analysis suggested that the likely cause of the episodes was contamination of the transfer set during connection or disconnection.

Introduction of Alcavis

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- Alcavis 50 (Alcavis HDC LLC, Gaithersburg, MD) is a 0.55% solution of sodium hypochlorite in normal saline
- Two additional steps were introduced whereby the patient cleans the transfer set with Alcavis 50
- The patient uses a 2 x 2 soaked with Alcavis and allows it to air dry:
 - Prior to removing the minicap
 - Before disconnecting from the cyclor or manual exchange

Results with Alcavis

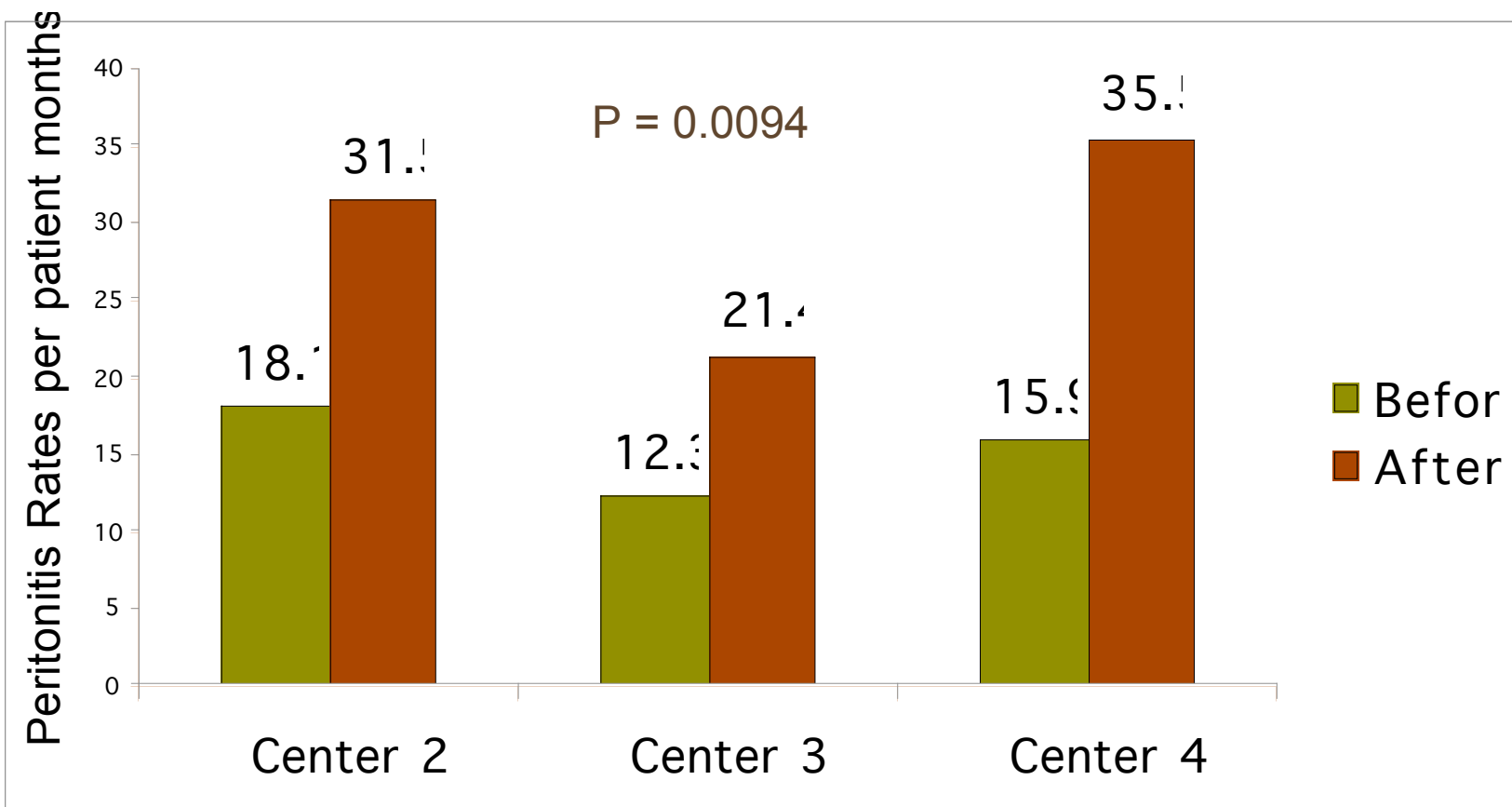
- We saw marked improvement immediately
- The peritonitis rates went from 1:26 to 1:42 over 6 months
- The improvement has been maintained
 - Over the last 12 months the peritonitis rate was 1:48
- We found that patients who used to get frequent infections had none in the year after we introduced the new policy.

Introduction to Other Centers

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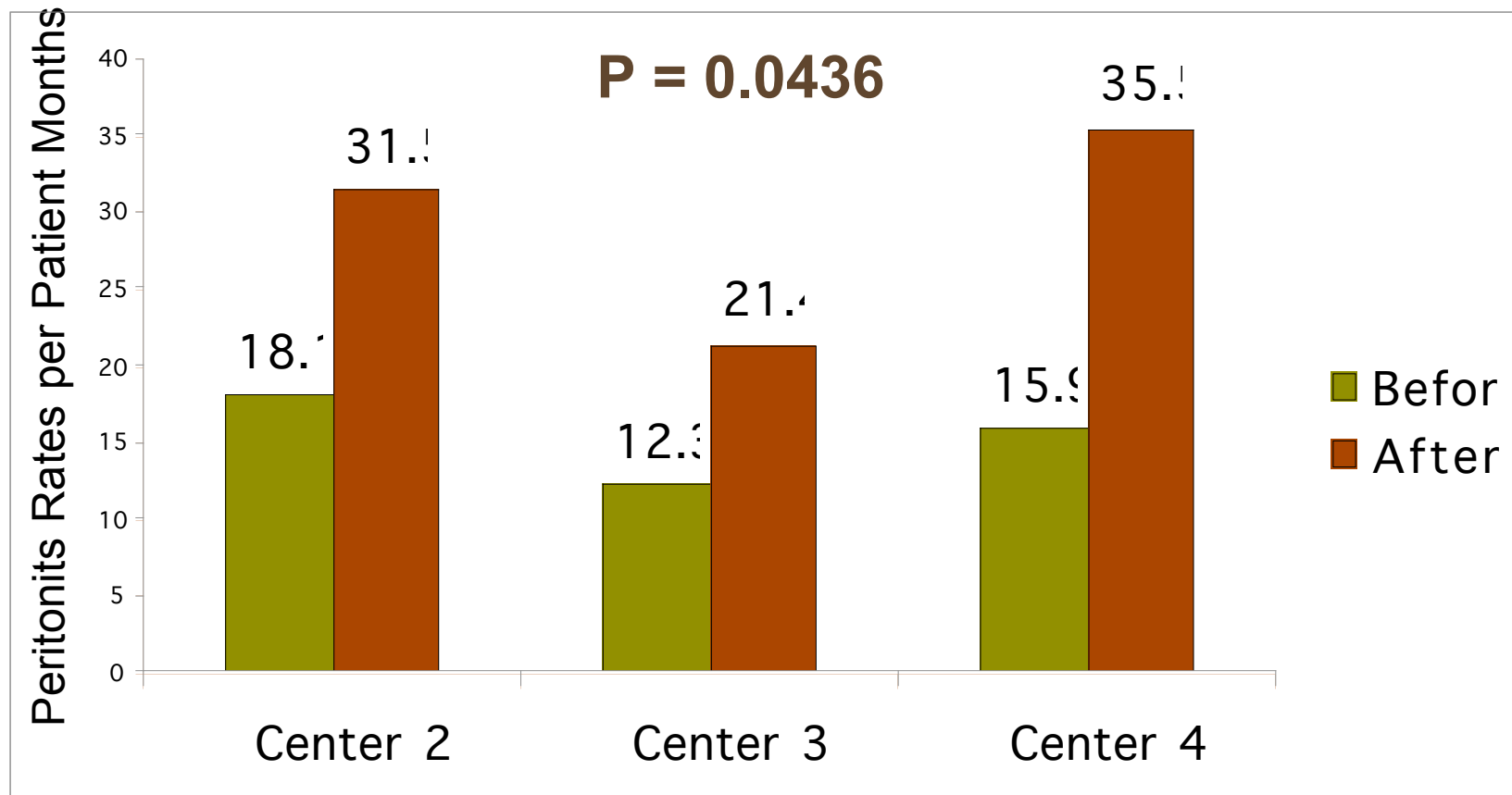
- Given the successful results, Alcavis was then introduced at 3 other WellBound centers (Centers 2, 3, 4)
- We now report 12 months of experience in Center 2 and 10 months in Centers 3 and 4
- All 3 centers showed a marked improvement in peritonitis rates

Peritonitis Rates: Before and After Alcavis Introduction



Center Effect:

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Benefits

- Decreased Peritonitis Episodes
- Decreased Hospitalizations
- Decreased Overall Patient Care Cost
 - Nursing Time
 - Supplies/Antibiotics
 - Decreased Hospitalizations
- Protect Peritoneal Membrane from Scarring

Cost?

- One bottle of Alcavis 50 costs \$8-\$10 / bottle
- This will last 1-2 months
- There are obvious savings in antibiotics, hospitalizations and nurse time!

Conclusion

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- Using Alcavis in this way improves overall patient peritonitis rates
- In conjunction with this new procedure, extended training time and patient education remains an important component to decrease infections and improve patient outcomes
- Improved peritonitis rate significantly affects overall patient outcomes

Contact information

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